

Notice of Allowability

Application No.

10/619,572

Examiner

Marivelisse Santiago-Cordero

Applicant(s)

TAKEDA ET AL.

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2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed on 7/23/07.
2. ☒ The allowed claim(s) is/are 1,3-8,10-13 and 15-25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Carl Brundidge on 9/21/07.

3. The application has been amended as follows:

Claim 1. (Currently Amended) A communication system comprising:

a home network installed with a home agent for holding mobile terminal location information of a mobile terminal, the mobile terminal using a first home address in the home network;

a visited network installed with a radio communications device for communicating with a mobile terminal; and

gateway equipment in said visited network for forming an interface with said home network, wherein said radio communication device contains an access request transfer means for forwarding access requests from said mobile terminal having moved to the visited network to said gateway equipment,

wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile

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terminal having moved to the visited network, [[said prefix being related to the first home address of said mobile terminal in the home network,]] and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network, and .

wherein the prefix is used, by said mobile terminal, to generate a second home address of said mobile terminal having moved to the visited network, [[said second home address indicating a home address of said mobile terminal in the visited network]]

wherein along with making a prefix acquisition request, said prefix request means also requests acquisition of Domain Name Server (DNS) server information from said home agent, and

wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network.

Claim 2. (Cancelled)

Claim 6. (Currently Amended) A communication system comprising:

a home network installed with a home agent for holding mobile terminal location information of a mobile terminal, the mobile terminal using a first home address in the home network,

a visited network installed with a radio communications device for communicating with a mobile terminal; and

gateway equipment in said visited network for forming an interface with said home network, wherein said radio communication device contains an access request transfer means for

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forwarding access requests from said mobile terminal having moved to the visited network to said gateway equipment,

wherein said gateway equipment comprises:

a prefix request means for requesting a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network, [[said prefix being related to the first home address of said mobile terminal in the home network,]] and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network,

wherein said mobile terminal comprises:

home address creation means for acquiring said prefix from said prefix transfer means of said gateway equipment and creating, by said mobile terminal, based on said prefix, a second home address, [[said second home address indicating a home address of said mobile terminal in the visited network,]] and

binding information registration means for registering information corresponding to said second home address created from said prefix and identification information of said mobile terminal having moved to the visited network at a Domain Name Server (DNS) server in the visited network, relay network or in a home network;

wherein along with making a prefix acquisition request, said prefix request means also requests acquisition of Domain Name Server (DNS) server information from said home agent, and

wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network.

Claim 8. (Currently Amended) A gateway equipment, installed in a visited network containing a radio communications device for communicating with a mobile terminal, for forming an interface with a home network containing a home agent for holding location information on said mobile terminal, the mobile terminal using a first home address in the home network, said gateway equipment comprising:

a prefix acquisition request means for requesting acquisition of a prefix for said mobile terminal having moved to the visited network from said home agent in response to an access request from said mobile terminal having moved to the visited network[[, said prefix being related to the first home address of said mobile terminal in the home network]]; and

a prefix transfer means for receiving the requested prefix from said home agent and forwarding the received prefix to said mobile terminal having moved to the visited network;

wherein the prefix is used, by said mobile terminal, to generate a second home address of said mobile terminal having moved to the visited network, [[said second home address indicating a home address of said mobile terminal in the visited network]]

wherein said prefix request means makes a prefix acquisition request and a Domain Name Server (DNS) server information request to said home agent, and

wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network.

Claim 9. (Cancelled)

Claim 13. (Currently Amended) A communication method in a communication system including a home network installed with a home agent for holding mobile terminal location information of a mobile terminal, a visited network installed with a radio communication device for communicating with a mobile terminal, and gateway equipment in said visited network for forming an interface with said home network, the mobile terminal using a first home address in the home network, said communication method comprising:

forwarding, by said radio communication device, an access request from said mobile terminal having moved to the visited network to said gateway equipment;

making, by said gateway equipment, an acquisition request to said home agent for a prefix for said mobile terminal having moved to the visited network and forwarding an acquired prefix to said mobile terminal having moved to the visited network[[, said prefix being related to the first home address of said mobile terminal in the home network]]; and

creating, by said mobile terminal having moved to the visited network, a second home address based on said prefix acquired from said gateway equipment, searching a Domain Name Server (DNS) terminal and forwarding a packet addressed to said mobile terminal having moved to the visited network by registering mapping information along with said second home address generated from said prefix and a mobile terminal identification information in a DNS server within a relay network or home network, [[said second home address indicating a home address of said mobile terminal in the visited network]]

making, by said gateway equipment, a DNS server information acquisition request and a prefix request to said home agent, and forwarding said acquired DNS server information and identifier to said mobile terminal having moved to the visited network.

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Claim 14. (Cancelled)

Claim 20. (Currently Amended) An authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent for holding mobile terminal location information of a mobile terminal, a visited network installed with a radio communications device for communicating with a mobile terminal, and gateway equipment in said visited network for forming an interface with said home network, the mobile terminal using a first home address in the home network,

wherein said radio communication device forwards an access request from said mobile terminal having moved to the visited network to said gateway equipment, said authentication method comprising:

making, by said gateway equipment, an acquisition request to said home agent for a prefix for said mobile terminal having moved to the visited network, forwarding an acquired prefix to said mobile terminal having moved to the visited network, and authenticating said mobile terminal, [[said prefix being related to the first home address of said mobile terminal in the home network,]]

wherein the prefix is used, by said mobile terminal, to generate a second home address in said mobile terminal having moved to the visited network, [[said second home address indicating a home address of said mobile terminal in the visited network]]

wherein along with making a prefix acquisition request, said gateway also requests acquisition of Domain Name Server (DNS) server information from said home agent, and

wherein said gateway forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network.

Claim 24. (Currently Amended) An authentication method for a mobile terminal used in a communication system which includes a home network installed with a home agent for holding mobile terminal location information of a mobile terminal, a visited network installed with a radio communications device for communicating with a mobile terminal, and gateway equipment in said visited network for forming an interface with said home network, the mobile terminal using a first home address in the home network, wherein said radio communication device forwards an access request from said mobile terminal having moved to the visited network to said gateway equipment, said authentication method comprising:

making, by said gateway equipment, an acquisition request to said home agent for a prefix for said mobile terminal having moved to the visited network, forwarding an acquired prefix to said mobile terminal having moved to the visited network and authenticating said mobile terminal having moved to the visited network[[, said prefix being related to the first home address of said mobile terminal in the home network]];

acquiring, by said mobile terminal having moved to the visited network, said prefix from said gateway equipment and creating, by said mobile terminal, a second home address for said mobile terminal having moved to the visited network[[, said second home address indicating a home address of said mobile terminal in the visited network]]; and

registering mapping information, with said second home address generated from said prefix and a mobile terminal identification information, in a [[DNS]] Domain Name Server (DNS) server within a home network, or a visited network or relay network,

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wherein along with making a prefix acquisition request, said gateway equipment also requests acquisition of Domain Name Server (DNS) server information from said home agent, and

wherein said gateway equipment forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network.

Allowable Subject Matter

4. Claims 1, 3-8, 10-13, 15-25 are allowed.

5. The following is an examiner's statement of reasons for allowance:

Claims 1, 6, 8, 13, 20, and 24 are allowed because the closest prior art, Oishi (Pub. No.: US 2004/008119), either alone or in combination, fail to anticipate or render obvious a communication system, a gateway equipment, a communication method, and an authentication method wherein along with making a prefix acquisition request, said prefix request means also requests acquisition of Domain Name Server (DNS) server information from said home agent, and wherein said prefix transfer means forwards the acquired DNS server information along with said prefix to said mobile terminal having moved to the visited network, as defined in the specification, in combination with all other limitations in the claim(s) as defined by applicant.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSC 9/21/07

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